

## LONG HEADS AND BROAD HEADS.

THE immigration of foreigners always brings anxiety to the inhabitants of a country. An outsider seems to be an inferior being, a parvenu who only wants to warm himself in the sunshine which he has long imagined to brighten the country he comes to.

Such of the inhabitants as are anxious for the future, or are simply hostile, are always asking themselves what is to become of the newcomers in the midst of a population of different ideas. The conclusive answer is reached by considering the collective psychology of nations. Nothing is more impressionable than our consciousness. It yields with extraordinary facility to the influence of our surroundings. Exposed to the like benefits or disadvantages of teaching and of a similar mentality, you see the immigrants transformed under your very eyes. Irish and Sicilians, Jews and Germans become in one generation American citizens, just as Italians turn into Brazilians or Argentines. The new citizens are not a whit behind the old in chauvinistic ardour or in anti-patriotism. Everything depends on the *milieu* in which they happen to live and develop.

The growing uniformity of human civilisation, the similarity of action and thought of the nations and their closer and more continuous intercommunication render this adaptation, moral and intellectual, more and more easy as time goes on. But what of the physiological differences which distinguish human beings? Slight though they may be, will they not tend for ages to come to mark off the newcomers from the old-established inhabitants of the country?

In a volume which I published not long ago\* I set myself to elucidate this question, basing my inquiry upon a study of many specimens of people transplanted into divers climates and circumstances. I showed that the so-called characteristic differences of races cannot resist the influence of the variable surroundings. However, in dealing with cranio-logical characters I thought it safer not to admit that any radical change would take place before several generations had passed over. For we must remember that the index of head-measurement has at all times been considered as a quality hardly susceptible of change. It has, we thought, always marked and will always mark the difference between one race of people and another.

Brain measurement and its sister art, head measurement, have no doubt had more to do with our distinctions of races than have their modes of thought or of life. It was once erroneously thought that strength of intelligence could be estimated by the shape or size of the skull. We know into what regrettable and even comic exaggerations many writers such as Gobineau, Lapouge, Ammon, have been led, and even that most obstinate of race-sectaries, Houston Stewart Chamberlain, the favourite anthropologist of the Emperor William. In their worship of dolichocephalic† skulls they have specially exalted the Germans, who are put forward as representatives of the type they prefer. Now a comparative study of human skulls brings out this curious fact, that the long skull, which they have tried to impose on us as that of the aristocracy of the race, is principally found among savage and primitive populations. The ideal cephalic index, below 76, the mark of superior peoples like the Germans, who, according to Mr. Chamberlain, are by that sign destined to govern the world, is equally found among the Kroomen and Ashantis in West Africa, among the Tasmanians in Australasia, among the Papuans, Ainus, and Esquimaux. The under-dolichocephalic are represented in the same measure among the Japanese, Tartars, Northern Chinese, Esquimaux, Iroquois, the French of Roussillon, the Sardinians, Belgians, Flemings, Solomon Islanders, and Polynesians.

An even more significant thing is that as our civilisation advances, the number of broad heads, the brachy-cephalic, increases, and for this simple reason that our heads must grow larger in order to hold more facts and ideas. Gobineau and his followers,

\* *The Prejudice of Races.* (Constable & Co.)

† The cephalic index is the ratio between the greatest length (the maximum diameter from back to front) and the greatest breadth (maximum transverse diameter of the skull). This index varies in the human races from 71.20 to 85.60. The long skulls are dolichocephalic; the broad or round are brachy-cephalic.

when they lament the disappearance of the dolichocephalic only prove their profound ignorance of the laws of craniological development. Instruction enlarges the brain and improves its form. But, now, how long a time is necessary for a visible change to take place? The influence of craniological shape and its action on the richness and worth of our thought is no doubt nothing. But they are of value in the external classification of men.

Further, there is a law of organic co-ordination by which one change brings many others. When the breeders have succeeded in lengthening the beak of a pigeon, they find that its tongue is also lengthened. When the great Irish stag acquires its immense horns, its skull grows thicker, in order to support their weight; and it has been shown that at the same time the vertebræ of its neck become stronger, those of the back wider, and the forelegs bigger and more powerful. The more or less narrow skull naturally involves certain changes in the facial and frontal angles. The man is neither more nor less moral, stupid or genial for that. But he is distinct from his surroundings. And that is a great deal for the professors or amateurs of anthropological measurements; they work it with all the more zeal that in comparison with the skull hardly any other distinctive mark has any value whatever. Neither height nor weight, nor the colour of hair or skin is of any consequence in a really scientific comparison.

But they tell us that the shape of the skull is a different matter. It is not only one of the most significant traits; it is the most important of all, and it defies the influence of time or of surroundings.

Some two years ago I received a letter from one of the most distinguished American anthropologists in which he blamed the excessive timidity of my conclusions on the subject of the variability of skull formation among men. He pressed on me this fact that the cephalic index of immigrants to America often changed in the first generation, and changed radically in the second. The translation of my book had scarcely appeared in the United States. The great journals of that country, agreeing with a public letter of President Roosevelt, drew attention, with extreme kindness, to my *Prejudice of Races*. American readers sent to me their observations, confirming some of my positions which appeared to the anthropologists too revolutionary. They referred especially to the results of their "Immigration Commission," whose measurements and observations corroborated the theoretical conclusions and main ideas of my work on the evolution and the future of races. The Commission afterwards sent me several of their reports, for which I cannot sufficiently thank them.

The report devoted to the bodily modifications observed in the descendants of immigrants seemed to me one of the most con-

clusive.\* This document is of capital importance for the future of anthropology, for it contains a store of precise facts which may correct mistakes and destroy many prejudices. Thanks to the conscientious labours of the Commission, we can closely examine the fate reserved for head-formations as distinct as those of Jews who come from the East of Europe and Italians who come from Sicily. And the complicated changes of these different skulls, which seem to make almost visible efforts to approximate to the average American type, is one of the most striking phenomena in all physiology.

The Commission took up especially these two questions:—Do manifest changes occur in the physical type of immigrants into the United States under the influence of their surrounding *milieu*? And, if they do, what forms do they take?

Measurements were taken of thousands of children in school and beyond the schools under the close supervision of numbers of scientific men and of agents, resulting in hundreds of statistical tables which clearly bring out and synthetise the observations and facts so rigorously ascertained. For instance, we have a series of diagrams which prove that while the cephalic index of Jewish children born abroad and brought to the United States is 85·0 at the age of five, and 84·6 at the age of twelve, the same index in the children born in the United States is 83 at the age of five, and 82·3 at the age of twelve. With regard to Sicilian children the result is as follows:—A child born abroad has the index 80·8 at five years, and 78·9 at twelve; but if born in the United States it has 80·1 at five and 82·1 at twelve.

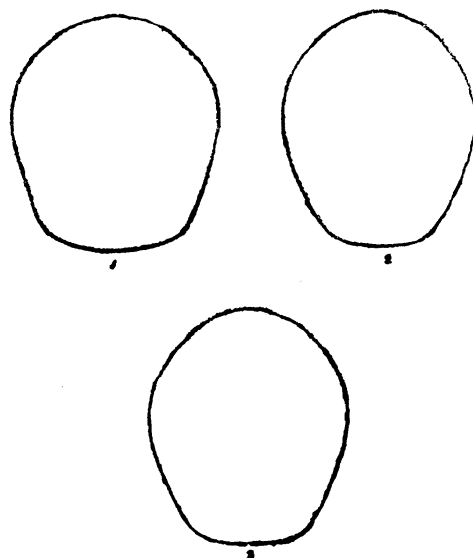
If we compare these significant figures, we immediately perceive how these two very distinct types tend to approach each other once they come under the same American influence. For while the Sicilian and the Jew born abroad, have the former a cephalic index of 80·8, and the latter of 85·0, born in the United States they will draw together so that the former will have only 80·1 and the latter 83·0; but when they come to twelve years of age both have made so rapid a change that the Sicilian index rises to 82·1 and the young Jew falls to 82·3. Both are so modified in skull shape as to approximate to the American average.

The head-formation of immigrants' children born in the United States approaches the American type in direct proportion to the length of time the parents have lived in their new country.

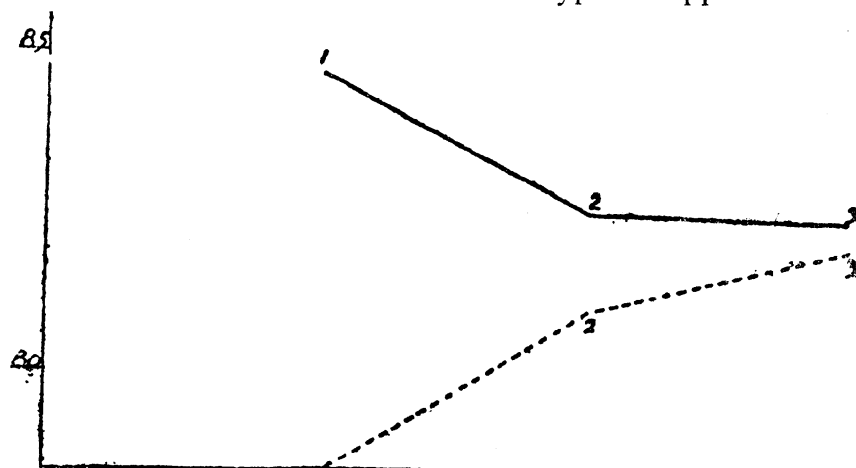
\* Changes in bodily form of descendants of immigrants. Senate, Washington, 1910.

The Immigration Commission was composed of five Senators, three Deputies, and several other scientific members selected from outside Congress. They had the control of considerable sums of money, and so were able to carry out measurements on a very large scale.

This is proved by a series of measurements of the heads of children of parents who have lived in the States more or less than ten years.



The drawing given above illustrates the position taken by the Commissioners, which is based on an examination of about 1,200 children. Fig. 1 represents the average head of a Jew born abroad; Fig. 2 that of a Sicilian also born abroad; Fig. 3 the average head of a Jewish or Sicilian child born in the United States of immigrant parents who have lived there more than ten years. And this curious phenomenon appears: while the heads of the young Jews grow longer, their breadth grows less. With the Sicilians the contrary phenomenon results: the length diminishes, while the breadth increases. And this contrariety in evolution tends to produce an average in which the essential differences which before marked the two types disappear.



The upper line represents the heads of Jews born abroad; the lower line that of Sicilians born abroad. They start from 1, and gradually approach one another towards 3, towards the average type of the United States.

These changes which take place in children of tender age continue during the whole of the growing period. Numerous measurements taken of older Sicilians and Jews up to the age of twenty leave no doubt on that subject. Following the law of organic co-ordination, the other parts of the head are also modified. Along with the cephalic index the length or breadth of the head and face tend to approach the average American type.

It would be useless to call in evidence the growth of children in height or weight. The variability of such changes, according to conditions of life, is an old-established fact. The economic circumstances of a country tell so manifestly upon the physical development of its inhabitants that, according to American investigators, the crisis and panic of 1893 had disastrous effects upon the size of immigrants.

What strikes one particularly in these reports is the disappearance, under the influence of circumstances, of characteristics which have been considered as the most persistent, if not absolutely fixed. And they disappear not as the result of the crossing of races or the survival of the fittest, but under the mechanical influence of the *milieu*. When we add that these modifications are one of the essential grounds of the division of human beings into races or varieties, we see that adaptation to the environment may attain to hitherto unsuspected proportions. Such a consideration seems to open a bright prospect for peoples whom we are pleased to consider as our inferiors, while, in reality, they are only for a time distinguishable from those who are observing them.

The conception of races as a kind of inexorable entities in which human beings are parted as we separate ponies or cows, has had its day. The word "race" no doubt will last a long time, though its meaning will have been emptied of all signification. In all ages men have made greater efforts to damn their souls than it would have cost to save them. So they will maintain this quasi-scientific term, which sows hatred and unjust contempt for our kind, in place of some word which would have connoted the brotherhood of mankind. But well-informed minds will see in it no more than a synonym for "country." An elevated and instructed mentality will cease to put physiological distinctions, supposed to be ineradicable, in the place where in fact there exist only different political, moral, and intellectual aspirations. Meanwhile let us banish from our vocabulary all talk of peoples being organically superior or inferior, whereas we have only peoples who are more or less civilised, more or less given over in certain conditions to money-making or to the ideal. We are living on a basis of words ill-understood or of which the meaning has changed. All our political life, so necessary to our happiness, is influenced by terms of false or at least vitiated meaning. It is a horrible brew—long ago

denounced by Plato, but which we drink until we arrive at a spiteful folly which offends Heaven and inflicts great suffering on mankind.

We must approach the thought of the nations and conquer their soul. Russification, Germanisation, Ottomanisation, and such like destructive proceedings will prove vain and sterile. Bohemia was crushed under the Austrian yoke for many centuries. Her people had been struck off the roll of the living: even her language and literature were gone. But the little spark of nationality still remained alive under those mountains of ashes. When the storm ceased to blow, the Czechs came forth one day, more Czech, more anti-German than ever. Little Crete, heroic and persevering, will soon become part of Greece, in spite of the obstinacy of the Turk and the blindness of diplomacy. The same is the case with Poland and Finland, whose consciousness, outraged by suffering, is in revolt and is carrying the world with it.

The brutal conquest of nations has had its day. You can annex their commerce but not their mind. The hope which lies at the bottom of a national consciousness is stronger than the blows which assail our bodies. Nations live as long as they are not willing to die. War has become a profession of dupes. It sheds plenty of blood, and brings about infinite misfortunes, but its conquests are temporary and delusive. It is not victorious armies which determine and mould the destiny of nations. Civilisation alone counts. It creates, grows, and destroys communities. The beauty and sweetness of culture penetrate into the fortress of our soul, inaccessible to the invasion of soldiery. The doctrine of living nations rises on the ruins of that of dead races. It has already gained the sacred and invulnerable right of nations to dispose of their own lot; and for that conquest alone it will be dear to mankind in the future. And the divine emancipation of the soul and spirit, delivered from this lie about races, will banish the stupid brutality of war. We shall hold in common great and beautiful thoughts. We shall compete in the graces and charms of our civilisations when we have buried our belief in the fantastic power of the cephalic index, in blond or brown heads, or the colour of our skins.

JEAN FINOT.